

## CLAIMS

What is claimed is:

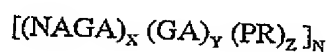
1. An antimicrobial composition, comprising a combination of a carbohydrate and an antimicrobial agent.
2. The composition of claim 1, wherein said carbohydrate originates from chitan.
3. The composition of claim 2, wherein said carbohydrate is N-acetylglucoseamine - glucosamine.
4. The composition of claim 1, wherein said antimicrobial agent is a broad spectrum antibiotic.
5. The composition of claim 4, wherein said broad spectrum antibiotic is pyrithione.
6. An antimicrobial composition having the following structural formula:



wherein x is from about 0.01 to about 0.3, y is from about 0.3 to about 0.98 and z is from about 0.01 to about 0.3 molar fractions, wherein  $x+y+z \sim 1$ , and N has a value between about 1 and about 100.

7. The composition of claim 6, wherein said composition has a molecular weight in range of about 1 kDa to about 150 kDa.
8. The composition of claim 1, wherein said composition further comprises between about 0.01% to about 1% of decyl polyglucose.
- ~~9. A method for treating a dermatological condition, comprising administering to a~~  
subject in need thereof an effective amount of a composition having N-acetyl-glucoseamine-glucosamine-pyrithione.
10. The method of claim 9, wherein said dermatological condition is acne or candida.

11. The method of claim 10, wherein said effective amount for treating said acne is 0.1 mg/mL.
12. The method of claim 10, wherein said effective amount for treating said candida is from about 0.05 to about 0.7 microgram/mL.
13. The method of claim 9, wherein said composition further comprises between about 0.01% to about 1% of decyl polyglucose.
14. The method of claim 9, wherein said composition is topically applied to an afflicted region of said subject.
15. A method for treating a dermatological condition comprising administering to a subject in need an effective amount of:



wherein x is from about 0.01 to about 0.3, y is from about 0.3 to about 0.98 and z is from about 0.01 to about 0.3 molar fractions, wherein  $x+y+z \sim 1$ , and N has a value between about 1 and about 100.